

NOTE: This preliminary discussion draft of the proposed Locomotive Regulation is provided for review purposes only. The draft is subject to ongoing revisions and refinement.

DRAFT REGULATION ORDER

Adopt, title 13, California Code of Regulations, Chapter 9, Article 8, Section 2478 to read as follows:

(Note: The entire text of sections 2478 through 2478.19 set forth below is new language in “normal type” proposed to be added to title 13, CCR.)

Airborne Toxic Control Measure for In-Use Locomotive Engines Operating in California

Section 2478. In-Use Locomotive Regulation

2478.1 Applicability

Except as noted in section 2478.2, this regulation applies to the following:

- (a) Any Person that owns, operates, sells, leases, or rents, or is an original equipment manufacturer of a locomotive operating in the State of California.
- (b) Federal Requirements

Nothing in this Regulation shall be construed to amend, repeal, modify, or change any applicable federal laws or regulations, including any United States Environmental Protection Agency (U.S. EPA) regulations or requirements. Nothing in this Regulation shall be construed to require anyone to take any action prohibited by the United States Constitution or the California Constitution. Any person subject to this Regulation shall ensure compliance with both federal regulations (including any U.S. EPA regulations) and the requirements of this Regulation, including but not limited to, where applicable, obtaining any necessary approvals, exceptions, or orders from the U.S. EPA. To the extent any requirements in this Regulation conflict with any applicable federal regulation, the requirements of the federal regulation shall prevail.

2478.2 Exemptions

This regulation does not apply to:

- (a) Locomotives with an engine that has a total rated power of less than 1,006 horsepower (hp);

- (b) Locomotives used for instructional purposes such as diesel mechanics. The locomotive must be owned by an accredited college, university, or other learning institute and cannot be involved with any form of commerce or for-profit functions;
- (c) Equipment designed for operation both on roads and rails;
- (d) Locomotives that operate less than 10 hours per calendar year; and
- (e) Military Locomotives.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####] [#####] [, _____ and _____], Health and Safety Code.

2478.3 Definitions

- (a) For the purposes of sections 2478.1 through 2478.19, the following definitions apply:
 - (1) "Air District" means one of the local air pollution control districts or air quality management districts established under H&S section 40000 et seq.
 - (2) "Arms-Length Transaction" refers to a sale, transfer, rental, or lease in which all parties act independently without one party influencing the other, and all parties have equal access to information related to the deal.
 - (3) "Automatic Engine Stop/Start (AESS)" means an automatic engine shut down/start up system that controls the engine by stopping or starting it without operator action.
 - (4) "Calendar year" means the time period beginning on January 1 through December 31 of a single year.
 - (5) "Certificate of Conformity" means the document that the United States Environmental Protection Agency (U.S.EPA) issues to an engine manufacturer to certify that an engine class conforms to U.S.EPA requirements. Every class of heavy-duty engines/vehicles and nonroad engines introduced into commerce in the U. S. must have a Certificate of Conformity, unless exempt through applicable federal or State regulations.
 - (6) "Class I Railroad" is defined by the Surface Transportation Board; the class is based on the carrier's annual operating revenues. The threshold, which was set in 1992, establishes Class I carriers as any carrier earning revenue greater than \$250 million.

- To account for inflation, the Board each year calculates deflator factors to adjust railroad annual operating revenues to 1991 levels.¹
- (7) “Class II Railroad” is defined by the Surface Transportation Board; the class is based on the carrier’s annual operating revenues. The threshold, which was set in 1992, establishes Class II carriers as those earning revenue between \$20 million and \$250 million. To account for inflation, the Board each year calculates deflator factors to adjust railroad annual operating revenues to 1991 levels.¹
- (8) “Class III Railroad” is defined by the Surface Transportation Board; the class is based on the carrier’s annual operating revenues. The threshold, which was set in 1992, establishes Class I carriers as any carrier earning revenue less than \$20 million. To account for inflation, the Board each year calculates deflator factors to adjust railroad annual operating revenues to 1991 levels.¹
- (9) “Cleanest Available Locomotive” means a locomotive for which the Primary Engine has engine emissions equal to or less than;
- (A) 1.3 grams per brake horsepower-hour (g/bhp-hr) oxides of nitrogen (NO_x) and 0.03 g/bhp-hr particulate matter (PM) prior to the year 2030;
 - (B) 0.15 g/bhp-hr NO_x, 0.006 g/bhp-hr PM, and GHG emissions 15 percent less than Tier 4 for years 2030 to 2035;
 - (C) 0.000 g/bhp-hr NO_x, 0.000 g/bhp-hr PM and 0.000 g/bhp-hr GHG emissions for years 2035+.
- (10) “Disadvantaged Community (DAC)” means an area which suffers from a combination of economic, health, and environmental burdens. These burdens include poverty, high unemployment, air and water pollution, presence of hazardous wastes as well as high incidence of asthma and heart disease. DACs are designated by the California Environmental Protection Agency for the purposes of SB 535, and their boundaries are identified in the most current version of CalEnviroScreen,² an analytical tool developed by the Office of Environmental Health Hazard Assessment (OEHHA).
- (11) “Emergency” means when the President of the United States or the Governor of the State of California declares a state of emergency related to any type of disaster where locomotives provide service to victims, shelters,

¹ Surface Transportation Board Railroad Classification Information
<[https://prod.stb.gov/reports- data/economic-data/](https://prod.stb.gov/reports-data/economic-data/)> accessed on March 2, 2021.

² California Disadvantaged Communities identified by CalEnviroScreen
<<https://oehha.ca.gov/calenviroscreen/sb535>> accessed on March 2, 2021.

and incident responders located in the State of California, including but not limited to, forest fires and earthquakes.

- (12) "Executive Officer" means the Executive Officer of the California Air Resources Board or his or her delegate.
- (13) "Family emission limit (FEL)" means an emission level declared by the manufacturer/remanufacturer to serve in place of an otherwise applicable emission standard, as shown in the US EPA Certificate of Conformity.
- (14) "Greenhouse gas" (GHG) means carbon dioxide (CO₂), methane (CH₄), nitrogen trifluoride (NF₃), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and other fluorinated greenhouse gases.
- (15) "Idling" means the locomotive is not moving, while the engine is on.
- (16) "In-Use Lifetime Limit" means the typical number of years operated upon reaching Minimum Useful life limit, multiplied by 1.35, times two years; this is 23 years.
- (17) "Line Haul Locomotive" means a locomotive that does not meet the definition of switch locomotive. This includes both freight and passenger locomotives.
- (18) "Locomotive" means a self-propelled piece of on-track equipment designed for moving or propelling cars that are designed to carry freight, passengers, or other equipment, but which itself is not designed or intended to carry freight, passengers (other than those operating the locomotive), or other equipment.
- (19) "Locomotive Engine" means an engine that propels or provides power to propel a locomotive. For locomotives propelled by two or more engines, the total rated power is the sum of the rated power of each engine.
- (20) "Locomotive Operator (Operator)" means the Person, that is responsible for operating the locomotive. A Locomotive Operator may include a Person that leases or rents a locomotive. A requirement in this Regulation that applies to the Locomotive Owner or Locomotive Operator, is determined by agreement or contract between the parties if the two are separate business entities.
- (21) "Locomotive Owner" means the Person, that has the records that demonstrate ownership for that locomotive. This includes but is not limited

to: bill of sale, title of ownership, or record of Surface Transportation Board filing of security agreement.

- (22) "Military Locomotive" means a locomotive owned by the United States government, and used by a branch of the military.
- (23) "Minimum Useful Life" is equal to the product of the rated horsepower on the locomotive engine label multiplied by 7.50 in Megawatt hours (MWh).
- (24) "Non-Operational Locomotive" means a locomotive that does not engage in operations. Non-operational locomotives may be moved for maintenance purposes, but may not haul other locomotives, passengers, or freight.
- (25) "Operate" means to start, cause to function, program the temperature controller, select an operating program or otherwise control, fuel, monitor to assure proper operation, or keep in operation.
- (26) "Original Engine Build Date" means the date of final assembly of the locomotive engine, wherein the Locomotive Engine has never been remanufactured.
- (27) "Original Equipment Manufacturer (OEM)" means any Person that originally manufactured new equipment, wherein the Locomotive Engine has never been remanufactured, for sale in commerce.
- (28) "Oxides of nitrogen (NO_x)" means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (29) "Particulate matter (PM)" means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist, fumes, or smog).
- (30) "Passenger Locomotive" means a locomotive designed and constructed for the primary purpose of propelling passenger trains, and providing power to the passenger cars of the train for such functions as heating, lighting and air conditioning, regardless of horsepower of the engine.
- (31) "Person" has the meaning of Health and Safety Code section 39047.
- (32) "Primary Engine" means the engine that propels the locomotive. If the locomotive is propelled by more than one engine, any provisions of this

regulation which use the primary engine's age to determine applicability of the In-Use Lifetime Limit, the age shall be the age of the oldest engine.

- (33) "Remanufacture" means to upgrade a locomotive engine using a United States Environmental Protection Agency (U.S. EPA) certified remanufacture kit. Upon remanufacture, an engine will be certified to the level specified by the remanufacture kit.
- (34) "Repower" means replacement of the engine in a previously used locomotive with a newly manufactured locomotive engine.
- (35) "Responsible Official" means an individual with the authority to certify that the locomotive complies with the requirements of this regulation. The Operator of each locomotive may only have one Responsible Official.
- (36) "Spending Account" means a trust, where all funds, including any interest or capital gains earned are solely dedicated to compliance with this regulation. No other funding sources shall be comingled in this account.
- (37) "Switch Locomotive" or "Switcher" means a locomotive that is powered by an engine with a maximum rated power (or a combination of engines having a total rated power) of 2,300 hp or less.
- (38) "Zero Emission Fueling Infrastructure" means a fueling system that provides the appropriate fuel type to power a zero emission (ZE) locomotive or zero emission equipment. To qualify as zero emission fueling infrastructure, the fueling system cannot be powered by or rely on backup power by a local (on-site or near-site) internal combustion engine or internal combustion generator.
- (39) "Zero Emission Locomotive" means a locomotive that never emits any criteria or toxic pollutant from any onboard source of power that provides traction to move the locomotive. For purposes of this definition, "onboard source of power" includes any power that is connected to and moves with the locomotive when it is in motion.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.4 Spending Account

- (a) Beginning on January 1, 2022, Locomotive Operators shall track activity in MWhs for each locomotive operating in California on an annual basis from January 1 to December 31 and report the activity as described in section 2478.8.

(b) By July 1, 2023, every Locomotive Operator that operates locomotives in California and not exempt under section 2478.2 shall establish a Spending Account.

(1) The account shall:

(A) Be held in the name of the Responsible Official for each railroad.

(B) Funds held in the Spending Account shall only be used for the purchase, lease, or rental of the Cleanest Available Locomotive, or to repower to the Cleanest Available Locomotive.

(C) Until December 31, 2028, funds may be used to pilot or demonstrate locomotive technologies that meet the following emission levels:

NO_x	PM	GHG
0.15 g/bhp-hr	0.006 g/bhp-hr	15% less than Tier 4

(D) Until December 31, 2033, funds may be used to pilot or demonstrate zero emission locomotive technology or zero emission infrastructure needed to support zero emission locomotives.

(E) Per requirements of the Alternative Spending Plan found in section 2478.7, until December 31, 2033, funds may be used to purchase zero emissions technology for equipment that operates within three miles of locomotive operations.

(F) Any Spending Account funds used for purchase of equipment or services must be an arms-length transaction based on current market rates.

(2) Any interest or capital gains earned on the funds held in the Spending Account shall be used as specified in (1)(B) – (1)(F).

(3) If not prohibited by separate requirements, funding from other sources may be combined with Spending Account funds for transactions as specified in (1)(B)–(1)(F). Funding from other sources must be held in accounts separate from the Spending Account.

(c) On or before July 1, 2023, and on or before each subsequent July 1, every Locomotive Operator operating one or more locomotives in California during the previous calendar year shall add funds to their Spending Account. Using the previous calendar years reported data, the charge shall be calculated according to one of the following formulas:

- (1) For locomotives other than Zero Emission Locomotives the following formula shall be used for Spending Account funding:

$$\text{Funding Total } [\$] = \{(\text{NOx EF [g/bhp-hr]} + (\text{PM Factor}) \times (\text{PM EF [g/bhp-hr]})\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]})$$

- (A) NO_x Emission Factor (EF) means NO_x Family Emission Limit (FEL) as indicated on the Certificate of Conformity, or the Certified NO_x Emission Level as accepted by the U.S. EPA for the Certificate of Conformity.
- (B) PM EF means PM standard or FEL the locomotive is certified to as indicated on the Certificate of Conformity, or the Certified PM Emission Level as accepted by the U.S. EPA for the Certificate of Conformity.
- (C) PM Factor is the number in Table 1 for the corresponding calendar year.
- (D) Annual Factor is the number in Table 1 for the corresponding calendar year.
- (E) Usage means total MWhs for the previous calendar year the Locomotive operations in California.

- (2) Until December 31, 2034, for each Zero Emission Locomotive in the Locomotive Operator's Fleet, the Zero Emission Credit shall be determined according to the following formula and Table 1:

$$\text{ZE Credit } [\$] = \{6.5 + 0.16 (\text{PM Factor})\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]})$$

- (A) PM Factor is the number in Table 1 for the corresponding calendar year.
- (B) Annual Factor is the number in Table 1 for the corresponding calendar year.
- (C) Usage means total MWhs for the previous calendar year Zero Emission Locomotive operations in California.

- (3) Until December 31, 2034, for each Zero Emission Locomotive Operating in a DAC the ZE credit per MWh within the DAC shall be multiplied by two:

$$\text{ZE Credit } [\$] = (\{6.5 + 0.16 \times (\text{PM Factor})\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]}) \times 2$$

Table 1: Particulate Matter and Annual Factors by Year

Year	PM Factor	Annual Factor
2022	13.1	79.1
2023	13.1	82.3
2024	13.1	85.6
2025	13.1	89.0
2026	13.1	92.6
2027	13.1	96.2
2028	13.1	99.9
2029	13.1	103.8
2030	13.1	107.3
2031	13.1	111.4
2032	13.1	115.8
2033	13.1	120.4
2034	13.2	125.1
2035	13.2	130.1
2036	13.2	135.1
2037	13.2	140.6
2038	13.2	146.4
2039	13.2	152.1
2040	13.2	158.5
2041	13.2	164.8
2042	13.2	171.5
2043	13.2	178.5
2044	13.2	185.7
2045	13.2	193.3
2046	13.3	201.2
2047	13.3	209.6
2048	13.4	218.5
2049	13.4	228.0
2050	13.5	238.1

(4) The Total Funds Deposited yearly in the Spending Account are calculated based on the following formula:

$$\text{Total Funds Deposited} = \sum[(\text{Funding Total per locomotive}) - (\text{ZE Credit per locomotive})]$$

(5) If, for a given calendar year, a Locomotive Operator has a negative Total Funds Deposited due to having more ZE Credits than the Funding

Total, the negative balance may be banked as a credit and added to the ZE Credits of a subsequent calendar year.

- (6) Any and all ZE credits expire on January 1, 2035.
 - (7) Any ZE credit issued by CARB does not constitute property or a property right and has no monetary value. Credits shall not be traded with other operators and are not exchangeable other than as specified in this section. ZE credits shall only be used for the purposes expressly set forth in this chapter.
 - (8) A ZE Locomotive shall not qualify for generation of ZE Credit if the ZE Locomotive:
 - (A) Is required by any federal, State or local rule or regulation, memorandum of agreement, memorandum of understanding, settlement agreement, mitigation requirement, other legal mandate; or
 - (B) Was purchased in part or in whole using public grant funds.
 - (9) When a Locomotive Operator does not have EF information, the Locomotive Operator should use the following emission factors.
 - (A) Line haul locomotives: 13.0 g/bhp-hr for NO_x and 0.32 g/bhp-hr for PM emission factors.
 - (B) Switch locomotives: 17.4 g/bhp-hr for NO_x and 0.44 g/bhp-hr for PM emission factors.
- (a) Any CARB designee, including but not limited to the California Department of Finance may audit a Spending Account on CARB's behalf at any time.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [_____] and [_____], Health and Safety Code.

2478.5 In-Use Useful Life Limit

- (a) Beginning January 1, 2030, all locomotives with a Locomotive Engine build date prior to 2007 shall not operate in California. Every subsequent January 1, any locomotive that is 23 years or older, based on the year the primary engine was originally built, shall not operate in California.

(b) A locomotive may continue to operate in California beyond the date specified in subsection (a) if the Locomotive Operator reports to CARB as required in Section 2478.8 that:

- (1) The Primary NOx and PM emissions on the United States Environmental Protection Agency Certificate of Conformity for the locomotive are equal to or cleaner than the Cleanest Available Locomotive; or
- (2) The locomotive has not exceeded a total of 89,100 MWhs of operation since its original engine build date.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.6 Idling Requirements

(a) A Locomotive Operator shall ensure an AESS equipped main locomotive engine is shut off no more than 30 minutes after the locomotive becomes stationary. A locomotive may exceed 30 minutes of idling for only the following reasons:

- (1) To prevent engine damage such as to prevent the engine coolant from freezing;
- (2) To maintain air pressure for brakes or starter system;
- (3) To recharge the locomotive battery;
- (4) To perform necessary maintenance;
- (5) To otherwise comply with federal or state regulations; or
- (6) The locomotive is a Zero Emission locomotive.

(b) No person shall remove, tamper with, or turn off a properly functioning AESS.

(c) A Locomotive Operator with an AESS equipped main locomotive engine shall ensure the AESS is functional at all times.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.7 Alternative Spending Plan

(a) General requirements for using the Alternative Spending plan for the requirements found in section 2478.4.

- (1) Applicants seeking approval of an Alternative Spending Plan must submit their applications to the Executive Officer on or before the following dates in Table 2 for each three-year period:

January 1, 2024
January 1, 2027
January 1, 2030
January 1, 2033
January 1, 2036
January 1, 2039
January 1, 2042
January 1, 2045

- (2) An approved Alternative Spending Plan is valid for a period of three years; no additional plans shall be approved during that period.
- (3) The proposed Plan shall use Spending Account funds to purchase zero emissions equipment, or to advance zero emission technology by pilot or demonstration.
- (4) Equipment funded through the proposed Plan shall operate in and around California railyard facilities or within three miles of the operating location of a locomotive within California.
- (5) All non-locomotive zero emission equipment purchased using the Alternative Spending Plan shall achieve emission reductions equal to or better than emission reductions that would have been achieved if purchases were made under the requirements of Sections 2478.4 (b)(1)(B), (C) and (D).
- (6) Applicants shall quantify the reductions for NO_x, PM, and GHG using the methodology described in the application per section 2478.7(b)(1)(E) of this Control Measure.
- (7) The proposed Plan shall not include purchase of equipment or services from the applicant or to any subsidiary or partner of the applicant.
- (8) The proposed Plan shall report any anticipated emissions reductions of NO_x and PM that, are early or in excess of: (1) any other state, federal or international rule, regulation, statute, or any other legal requirement

(including any requirement under a Memorandum of Understanding with a government entity), that is in effect, has been approved, or has been noticed; or (2) of an emission reduction strategy identified in an AB 617 Community Emissions Reduction Program that has been approved by CARB's Governing Board.

- (9) The proposed Plan shall not increase emissions at other railyard facilities or other locations where locomotives operate.
- (10) The proposed Plan shall report the location and usage for each piece of zero emission equipment for the lifetime of the equipment.
- (11) The emission reductions achieved by using zero emissions equipment purchased by the Plan must be real, quantifiable, verifiable, and enforceable where:
 - (A) "Real" means that reductions result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all emissions within the Plan;
 - (B) "Quantifiable" means the ability to accurately measure and calculate NO_x, PM, and GHG reductions relative to the annual emission reductions that would have occurred under this regulation;
 - (C) "Verifiable" means that any emission assertions are well documented and transparent such that it lends itself to an objective review; and
 - (D) "Enforceable" means the authority for CARB to hold a particular party or parties liable and to take appropriate action if any of the provisions of this article are violated.
- (12) No Plan shall be partially or fully funded with a public incentive program.
- (13) Any person complying with this Regulation using an approved Plan shall maintain records in a manner and form as specified by the Executive Officer in the approved Plan Agreement. Required records include, but are not limited to, information on fuel usage, Megawatt-hours, routes, maintenance procedures, and emissions test results. Such records and reports shall be retained for at least 5 years after the end of the life of the emissions associated with the project and shall be submitted to the Executive Officer in the manner specified in the approved Plan Agreement and upon request

by the Executive Officer, either within 10 calendar days or by a later date approved by the Executive Officer on a case-by-case basis.

(14) No person shall comply with this section by operating under a Plan unless the applicant has first been notified in writing by the Executive Officer that the Plan application has been approved. Without approval, Locomotive Owners or Operators shall comply with the provisions in section 2478.4 of this Regulation.

(15) The Plan shall be implementable within the timeframe needed to be used for compliance with this Regulation, including any time needed for environmental review (if applicable).

(16) No person shall comply with this section by operating under a Plan that has been revoked.

(a) Application and approval process.

(1) Applications for the Alternative Spending Plan shall contain, at a minimum, the following information:

(A) Company name, address, and contact information;

(B) Amount of funding to be spent in the project;

(C) Source of funding for the project;

(D) Description of the proposal including an overview of the source and scope of emission reductions, and a project site plan and location map;

(E) The proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate reductions;

(F) A summary of all governmental approvals necessary to enable development of the Plan;

(G) A discussion regarding any environmental review requirements that may apply to the proposed Plan, including identification of which agency would serve as the lead agency for environmental review purposes.

- (2) Applications will be published on CARB's website, and made available for 45 calendar days for public comment. After the public comment period, applicants shall submit to CARB a response to all public comments within 45 calendar days so the response can be posted with the application.
- (3) CARB Review and Approval. Once CARB posts the response, CARB shall evaluate the Plan to determine if:
- (A) The Plan meets all eligibility and applicability requirements;
 - (B) The applicant provides enough information to estimate emission reductions;
 - (C) The applicant responded fully to all public comments;
 - (D) The applicant has demonstrated that the Plan will be implementable within the timeframe needed to be used for compliance with this Regulation, including any time needed for environmental review (if applicable); and
 - (E) All required environmental review (if applicable), including any review required under the California Environmental Quality Act, has been completed for the proposed Plan.
 - 1. The determination as to which agency serves as the lead agency for purposes of the California Environmental Quality Act shall be made as specified in sections 15050 et seq. of title 14 of the California Code of Regulations.
 - 2. If CARB is not the lead agency for purposes of conducting environmental review on a proposed Plan, the applicant shall provide final, legally adequate environmental analysis documentation to CARB before the Executive Officer will approve the Plan for use in complying with this Regulation. If no environmental review is determined to be required by a local lead agency, the applicant shall submit documentation explaining why environmental review is not required, to the Executive Officer's satisfaction. The Executive Officer may deny, in whole or in part, a Plan application if, for any reason, the Executive Officer determines the Plan or the lead agency has not satisfied its environmental review requirements.

3. If CARB is the lead agency for purposes of conducting environmental review on a proposed Plan, then the applicant shall provide any additional documentation as needed to complete any environmental review CARB deems necessary. CARB's review and approval of a Plan is not a land use approval; CARB lacks authority to either permit or deny an applicant from moving forward with the activity underlying a proposed Plan. CARB's authority in reviewing a Plan proposal is limited to determining whether a proposed Plan is eligible for use in complying with this Control Measure. The Executive Officer may deny, in whole or in part, a Plan application if necessary to avoid any significant environmental impact, or for any other reason set forth in this section.
 4. Environmental Review Costs and Fees. If environmental review is required in connection with a proposed Plan and CARB incurs costs in preparing such environmental review, CARB may charge and collect a reasonable fee from innovative project applicants to recover those costs as set forth in section 21089 of the Public Resources Code.
- (4) If an application is approved, the Executive Officer will notify the applicant of approval to use the Plan for compliance with this Regulation and will publish the approval in an Executive Order, along with the application. The Executive Officer's approval of an application is not a local land use approval. All parts of the Plan shall fully comply with all applicable laws, ordinances, regulations and standards, including by obtaining any permits or approvals necessary to undertake the activities constituting the Plan, and complying with all environmental review requirements associated with such activities.
 - (5) If an application is incomplete, the Executive Officer will notify the applicant of the deficiency. Applications will be denied after 30 calendar days unless the applicant corrects and resubmits the application for a new evaluation.
- (a) Applications and reports for Plan shall be submitted to CARB according to section 2478.15 of this Regulation.
 - (b) Revocation or modification of an approved Plan.
 - (1) The Executive Officer may revoke or modify an approved Plan's Executive Order if the Executive Officer concludes:

- (A) The application provisions in this Regulation or Executive Order are not met;
 - (B) The Plan no longer meets the criteria or requirements for use;
 - (C) The applicant can no longer comply with the requirements of the approved Plan in its current form; or
 - (D) The Plan becomes no longer capable of being used for compliance with this Regulation, for any reason, including due to failure to meet any eligibility or applicability requirement.
- (2) CARB will provide 30 calendar days' notice to the Plan holder of the revocation or modification.
 - (3) CARB's determination is final and not subject to review.
 - (4) Public notification of a revocation or modification of an approved Plan shall be made available on CARB's website.
- (c) If a proposed Plan is not approved, or if a Plan is not ultimately implemented in a manner enabling it to be used the otherwise applicable provisions of this Regulation shall prevail. Any entity failing to comply with this Regulation is in violation of this Regulation, as set forth in 2478.16 of this Regulation.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.8 Reporting Requirements

- (a) Beginning April 1, 2023, and every April 1 thereafter, every Locomotive Operator shall report the following information for each Locomotive operated in the State of California from January 1 to December 31 of the previous calendar year:
- (1) Operator name;
 - (2) Locomotive Road Number;
 - (3) Locomotive Serial Number;
 - (4) Engine Family;
 - (5) Current Megawatt-hour reading as of December 31:

- (A) For locomotives that remain in the State one hundred percent of the time and does not have a Megawatt-hour meter, the Locomotive Operator shall record annual fuel usage for that locomotive;
- (B) If the Megawatt-hour meter needs to be replaced for maintenance purposes, the Megawatt-hour meter reading of the old Megawatt-hour meter shall be recorded, along with the date it was replaced, and then added to the total from the new Megawatt-hour meter to determine the current Megawatt-hours for that year;
- (6) Total Megawatt-hours operated or total fuel used throughout the year in California, broken down by Air District;
- (7) If a Locomotive Operator is operating a Zero Emission locomotive in a DAC, it must report the following to obtain the DAC ZE Credit:
 - (A) Total Megawatt-hours throughout the year within the boundaries of the DAC;
- (8) Total Engine hours throughout the year in California, broken down by air district;
- (9) Amount of funds to be deposited into the Spending Account for activity of all locomotives from January 1 to December 31 of the previous calendar year;
- (10) Amount of interest or capital gains earned on all funds in the account from January 1 through December 31 of the reported previous calendar year.
 - (A) Reported interest or capital gains shall be substantiated through a calculation or a bank statement that directly reflects what was reported;
- (11) All account activities from January 1 to December 31 of the previous calendar year;
 - (A) For each locomotive purchased, leased, or rented, report the following information:
 1. Locomotive Identifier (ID);
 2. Locomotive manufacturer;
 3. Locomotive model;
 4. Locomotive engine serial number;

5. Locomotive engine rated horsepower;
6. Engine family;
7. Locomotive Tier;
8. NO_x and PM emissions on the United States Environmental Protection Agency Certificate of Conformity for the locomotive;
9. Purchase, lease, or rental amount;

(12) Does the locomotive have an AESS? Yes or No; and

(13) Time, date, location, and duration in idle over 30 minutes:

(A) Idle reason.

(b) Information shall be reported as described in Section 2478.15

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####] [, #####] [, _____ and _____], Health and Safety Code.

2478.9 Testing Data Submittal for Zero Emission Locomotives

[Development of this section is underway.]

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####] [, #####] [, _____ and _____], Health and Safety Code.

2478.10 Registration Requirements

(a) By April 1, 2023, for each Locomotive operating in the State of California, the Locomotive Operator shall have completed a one-time registration for each Locomotive by submitting the following information to CARB per requirements in 2478.15.

(1) Company Information:

(A) Company name;

(B) Address;

(C) Tax Identification Number;

- (D) Responsible official title;
- (E) Responsible official phone number; and
- (F) Responsible official email address.

(2) Locomotive Information:

- (A) Locomotive Road Number;
- (B) Locomotive Serial Number;
- (C) Locomotive Model Number;
- (D) Engine Tier;
- (E) Certificate of Conformity values for NO_x and PM (if applicable);
- (F) Engine family;

1. If Engine family information is not available through a public U.S. EPA data source, the Responsible Official shall provide the Certificate of Conformity for that engine which clearly shows Family Emission Limit values for NO_x and PM.

- (G) Date acquired;
- (H) Original engine build date;
- (I) Engine power rating in horsepower;
- (J) Engine manufacturer name;
- (K) Engine serial number;
- (L) Operational status; and
- (M) Zero Emission technology (if applicable).

- (3) If registration information for any locomotive changes, then the Locomotive Operator shall update the information with CARB within 30 calendar days of the changes. For the purposes calculating Spending Account obligation, if a registration update is made more than 30 days after a change that lowers engine emissions, the Locomotive Owner may only apply the reduced emission levels upon the date of submittal.

- (4) If a Locomotive is added to an Operator's California operations after December 31, 2023, the Locomotive Operator shall register the locomotive within 30 days of the first California entry.
- (5) If a Locomotive is removed from the Operator's California operations by either sale or by decommissioning, the Locomotive Operator shall notify CARB of the change within 30 days.
- (6) A Locomotive Operator may choose to notify CARB to indicate they would like to remove a registered Locomotive from operational service in California. If the Locomotive returns to operations in California, the Operator shall re-register the Locomotive with CARB pursuant to this section.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####] [, #####] [, ____ and ____], Health and Safety Code.

2478.11 Locomotive Recordkeeping

- (a) The Locomotive Operator shall make records available to CARB or a designee at its request for audit to verify the accuracy of the records within 30 days of CARB's request.
- (b) The Locomotive Operator shall maintain the records for each piece of equipment subject to the reporting requirements of sections 2478.8 for the lifetime of the locomotive, and three years after it is removed from service or banned from the State. If ownership is transferred, the seller shall transfer the locomotive records to the buyer.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####] [, #####] [, ____ and ____], Health and Safety Code.

2478.12 Administrative Payment

- (a) The Executive Officer shall assess and collect reasonable fees to recover the estimated costs to CARB who is administering the Locomotive Regulation.
- (b) Administrative payments shall be due and payable to CARB via XXXX to the Executive Officer by July 1 of each calendar year. Payments are nonrefundable except in circumstances as determined by the Executive Officer.
- (c) A Locomotive Operator shall submit administrative payments to the Executive Officer in accordance with the fee schedule in Table 3 for each locomotive that Operated in California the previous year.

(d) Administrative payments shall be periodically revised by the Executive Officer to recover the reasonable costs of administering the In-Use Locomotive Regulation, in accordance with the following benchmarks:

- (1) The California consumer price index, as published by the United States Bureau of Labor Statistics;
- (2) Costs that are attributable directly to administration of the in-use Locomotive Regulation; and
- (3) A percentage of the indirect Board and statewide costs as agreed to by the Department of Finance and the U.S Environmental Protection Agency, under Title 2, Code of Federal Regulations, Part 200.

Table 3: Annual Administrative Payments for Locomotives

Charge per Locomotive
\$220

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####] [,#####] [, ____ and ____], Health and Safety Code.

2478.13 Original Equipment Manufacturer (OEM) Recordkeeping Requirements

- (a) For each Locomotive it produces, OEMs shall maintain records of the information listed below for a minimum of three years from delivery of locomotive to the Locomotive Operator.
- (1) Locomotive Road Number;
 - (2) Locomotive engine original build date;
 - (3) Locomotive purchase price;
 - (4) Engine Tier;
 - (5) NOx and PM emissions on the United States Environmental Protection Agency Certificate of Conformity for the locomotive
 - (6) Engine family;
 - (7) Engine manufacturer;
 - (8) Engine power rating in horsepower;

- (9) Engine model, as it appears on the serial number label, if different;
- (10) Engine serial number;
- (11) Locomotive zero emission technology type (if applicable); and
- (12) Projected locomotive orders for subsequent calendar years.

(b) When requested by CARB, OEMs shall provide the relevant recordkeeping information within 30 days of the request.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.14 Requirements that apply to the sale, rental, or leasing of Locomotives

- (a) No person shall sell, rent, or lease a new or used locomotive for operation in the State of California that does not meet all the requirements of this regulation.
- (b) All emissions labels shall be intact prior to sale. If a label is missing, the seller shall replace the label prior to sale.
- (c) Any person selling, leasing, or renting a locomotive subject to this regulation shall provide the following disclosure in writing to the buyer, leaser, or renter on the bill of sale, sales contract addendum, or invoice, "A locomotive operating in the State of California may be subject to the California Air Resources Board's In-Use Locomotive Regulation, title 13, California Code of Regulations, Chapter 9, Article 8, Section 2478. For more information, please visit the California Air Resources Board website at <http://www.arb.ca.gov>".

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.15 Submittals to CARB

- (a) All applications, reports, and plans submitted to CARB shall:
 - (1) Be written in the English language;
 - (2) Attest that the information submitted is true, accurate and complete, signed by the Responsible Official under penalty of perjury; and
 - (3) Be submitted to CARB in writing or through electronic means. All parties submitting written applications, reports, plans, or other information must

notify CARB by e-mail that the submittal is being made in writing; the e-mail must include the date sent or, if delivered in-person, the date delivered. Written submits should be addressed to:

CHIEF, TRANSPORTATION AND TOXICS DIVISION
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95814

- (4) CARB may also allow online submittal to a CARB reporting system or e-mail at CARBLocomotives@arb.ca.gov.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.16 Non-Compliance and Penalties

(a) Non-compliance

- (1) All persons, as defined in subsection 2478.3, found to be in violation of title 13, CCR, sections 2478 through 2478.18 may be cited and subject to the penalty provisions set forth in Health and Safety Code sections 39674, 39675, 42400 et seq., 42402 et seq., 42410, and 43016.
- (2) Any person who fails to comply with the general requirements of this regulation, who fails to submit any information, report, or statement required by this regulation, or who knowingly submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this regulation may be subject to civil or criminal penalties under sections 39674, 39675, 42400, 42400.1, 42400.2, 42402.2, and 43016, of the Health and Safety Code.
- (3) Each day during any portion of which a violation occurs is a separate offense.
- (4) Each Locomotive found in violation of sections 2478.4 through 2478.16 is a separate offense.

(b) Tampering

- (1) No person shall remove, tamper with, or turn off a properly functioning locomotive Megawatt-hour meter.
- (2) If CARB finds that a person has violated this section, the maximum fine may be imposed in the case.

- (3) The notice to appear issued or complaint filed for a violation of this section shall require that the person to whom the notice to appear is issued, or against whom the complaint is filed, produce proof of correction or proof of exemption pursuant to Section 2478.2.

(c) Right of Entry

- (1) For the purpose of inspecting locomotives subject to this regulation and their records, including financial information, to determine compliance with this regulation, an agent or employee of CARB, upon presentation of proper credentials, has the right to enter any facility (with any necessary safety clearances) where equipment is located or records are kept.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.17 Relationship to Other Law

Nothing in this section allows locomotives to operate in violation of other applicable law, including, but not limited to:

- (a) California Health and Safety Code.
- (b) Any applicable ordinance, rule, or requirement as stringent as, or more stringent than, the requirements of this regulation.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.18 Authority to Request Additional Information

The Executive Officer may request that additional information be submitted as part of the review of any application, exemption, or other action that delays or defers a compliance date or action or as part of an enforcement action.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code. Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

2478.19 Severability.

If any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of this regulation is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the regulation.

NOTE: Authority cited: sections [#####, ##### and #####], Health and Safety Code.
Reference: section[s] [#####], [#####], [____ and ____], Health and Safety Code.

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